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SATONDELLA DANIELI, A NEW SPECIES OF SCISSURELLIDAE (MOLLUSCA, GASTROPODA, PROSOBRANCHIA) FROM THE ARCHIPELAGO OF MADEIRA (NE ATLANTIC OCEAN)

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With 1 plate

ABSTRACT. *Satondella danieli* n. sp. is described and figured from the Desertas Islands in the archipelago of Madeira. Comparisons with *Satondella tabulata* (Watson, 1886), *Sinezona cingulata* (O. G. Costa, 1861), *Sinezona semicostata* (Burnay & Rolan, 1990) and *Scissurella costata* d'Orbigny, 1824 are given. This new species is also present in the island of Madeira.

KEY WORDS: Gastropoda, Madeira, NE Atlantic, *Satondella*, new species.

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RESUMO. No presente trabalho *Satondella danieli* n. sp. é descrita a partir de exemplares das Ilhas Desertas, no arquipélago da Madeira. São efectuadas comparações com *Satondella tabulata* (Watson, 1886), *Sinezona cingulata* (O. G. Costa, 1861), *Sinezona semicostata* (Burnay & Rolan, 1990) e *Scissurella costata* d'Orbigny, 1824. Esta nova espécie encontra-se também presente na Ilha da Madeira.

INTRODUCTION

Nordsieck & Talavera (1979) recorded *Scissurella costata* d'Orbigny, 1824 from Madeira, but unfortunately no specimens of it, collected in that area, were found at the Senckenberg Museum Frankfurt, Germany. The authors also did not find this species during a series of collecting trips to the archipelago of Madeira. In 2007, during a visit to the Zoologisch Museum Amsterdam, The Netherlands, several specimens from the Desertas Islands, off Madeira, identified as *S. costata* were found. Already at first glance, it was clear that they did not belong to *Scissurella* d'Orbigny, 1824, due to the presence of a foramen. After a careful study of the literature on the Scissurellidae in the North Atlantic (Watson, 1886, 1897; Nordsieck & Talavera, 1979; Burnay & Rolan, 1990; Rolan & Luque, 1994; Geiger, 2003, 2006; Nolt, 2007), the conclusion could only be that the studied material was belonging to the genus *Satondella* Bandel, 1998, which is characterized by the markedly raised edges of the foramen, and probably also represented a new species for science. Additional material collected in the island of Madeira and the advise of D. Geiger (Santa Barbara Museum of National History, California, USA.) led to the description presented herein.

Abbreviations used: ZMA: Zoologisch Museum Amsterdam, The Netherlands; MMF: Museu Municipal do Funchal (História Natural), Madeira; SBMNH: Santa Barbara Museum of National History, California, USA; CFS: Collection F. Swinnen, Belgium; CWS: Collection W. Segers, Belgium.

***Satondella danieli* n. sp.** (Plate I, 1a-c)

Material examined:

Holotype: ZMA: reg. no. 4.09.29, CANCAP Exp, st 1021, W of Deserta Grande, Desertas Islands, 32° 29' N 16° 32' W, 228-240 m.

Paratypes: ZMA: reg. no. 4.09.30-36, CANCAP Exp, st 1021, W of Deserta Grande, 32° 29' N 16° 32'W, 228-240 m, 7 shells & fragments. MMF 40311-15: Madeira, Porto Novo, 5 shells & fragments, R/V AURIGA, van Veen grab, 364 m. CFS: Madeira, Ponta da Atalaia, R/V AURIGA, van Veen grab, 8 shells & fragments, 407 m. CWS: Madeira, Ponta da Atalaia, R/V AURIGA, van Veen grab, 8 shells & fragments, 407 m.

Description: Shell trochiform, fragile, semi-translucent, up to 1.3 mm in diameter,

1.4 mm in height, with flat to slightly sunken spire; last whorl, flattened at upper part, rounded under slit band, sloping down rather steeply from last half whorl to aperture. Foramen with raised edges. Apparently smooth protoconch of about 0.85 whorls, aperture markedly widened, without a varix; teleoconch I of about 1.15 whorls; teleoconch II of about 0.75 whorls. Sculpture of strong axials overrun by thin spiral cords, forming nodules at the intersections. Shoulder sculptured with up to 35 axials and up to 10 spirals, both fading towards the protoconch. On the last whorl, base with up to 20 axials and up to 25 spirals. Aperture subquadratic with complete peristome. Lip simple, slightly thickened and denticulate due to the spirals, umbilicus deep, open, strongly carinated. Colour white.

Animal unknown.

Distribution: Only known from the archipelago of Madeira, the type locality.

Depth range: Up to the present, this species has been collected between 230 and 400 m of depth.

Etymology: The species is named after Daniel Geiger from SBNMH, for his help throughout.

DISCUSSION

This new species has a foramen in which the edges are markably raised and so it is clearly a representative of the genus *Satondella* and the first of that genus to be found in European waters. A comparison with three European and one Caribbean scissurellid species is as follows:

- *Satondella tabulata* (Watson, 1886) (Plate I, 2a-c):

This Caribbean species is the closest to the new species but, is smaller (only up to 1.1mm in diameter), has more dense axial sculpture (up to 50 axials) and less spiral sculpture on the base (only up to 20 spirals). Moreover the protoconch has a typical microhexagonal sculpture, which is apparently absent in the new species.

- *Scissurella costata* d'Orbigny, 1824 (Plate I, 3a-c):

The spire of this species stays flattened until the last quarter of the last whorl where it starts sloping down gently. It has no foramen, but an open slit, typical to the genus and it also lacks the carina bordering the umbilicus. Protoconch sculptured.

- *Sinezona semicostata* (Burnay & Rolan, 1990) (Plate I, 4a-c):

This species also has a foramen, but without markedly raised edges and without the carina at the umbilicus. It is markedly smaller, only up to 0.7 mm in diameter and has a sculptured protoconch.

- *Sinezona cingulata* (O. G. Costa, 1861):

This species has a foramen, but without markedly raised edges. It is also smaller, only up to 1 mm in diameter, has a sculptured protoconch and lacks the carina at the umbilicus, which is narrow.

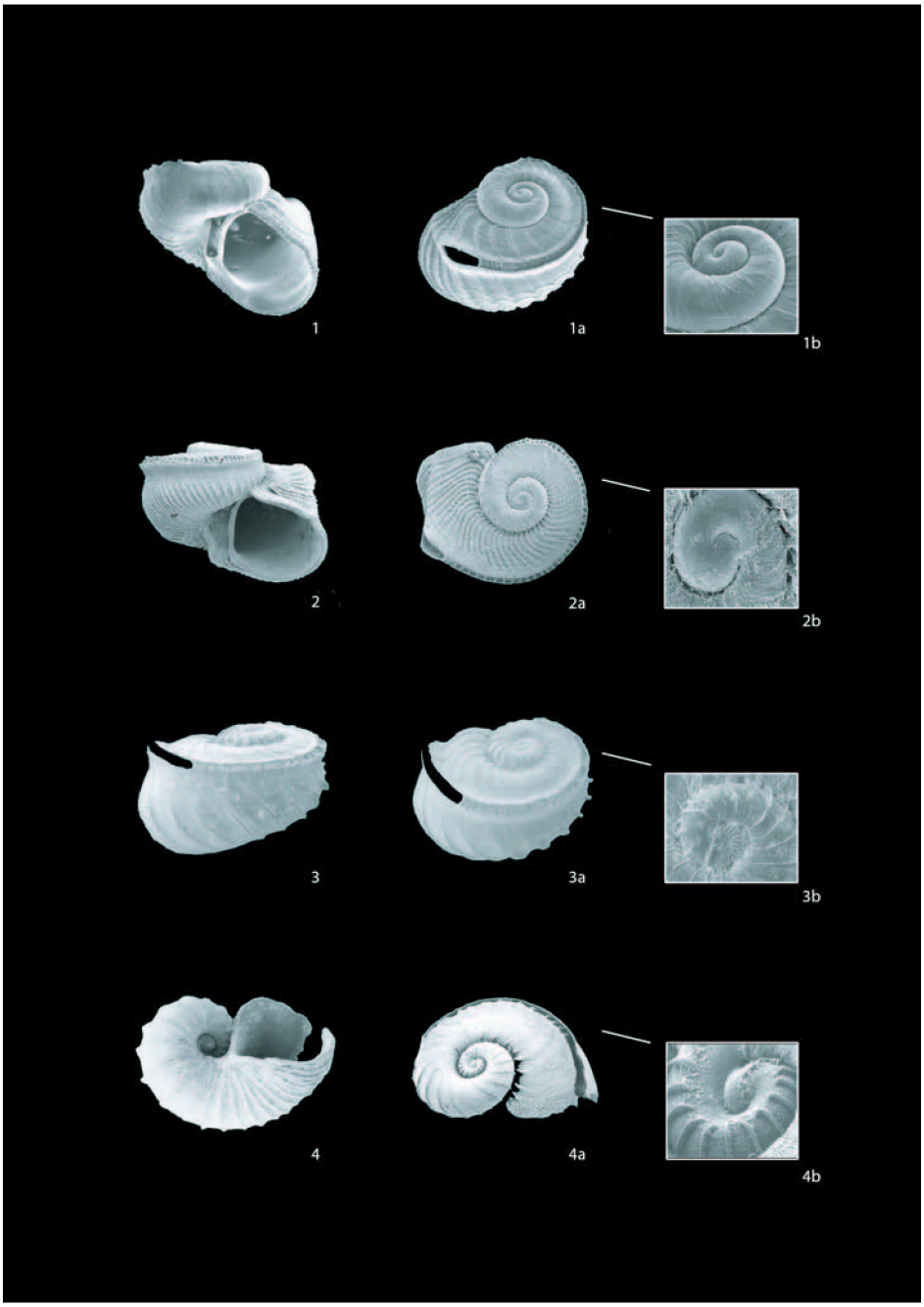
Plate I

1 - *Satondella danieli* n. sp.: holotype, ZMA, Madeira Archipelago. D = 1 mm; H = 0.80 mm;

2 - *Satondella tabulata* (Watson, 1886): type species, BMNH, West Indies. D = 1.10 mm; H = 0.83 mm;

3 - *Scissurella costata* d'Orbigny, 1824: CWS, Mediterranean. D = 1.45 mm; H = 1.08 mm;

4 - *Sinezona semicostata* (Burnay & Rolan, 1990): type species, Cape Verde Archipelago. D = 0.64 mm; H = 0.33 mm.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B O C A G I A N A

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NOTES ON TWO MADEIRA PLANTS

By N. C. H. Krauss [1]

The composite plant «Abundância» (*Eupatorium adenophorum* Spreng.) has been known in Madeira for many years. On July 24, 1962 I collected a second species of *Eupatorium*, *E. riparium* Schultz-Bip., confirmed by the Royal Botanic Garden, Kew, England. This was growing in association with *E. adenophorum* in a damp area along a path near Monte. Both these species of *Eupatorium* are native to Mexico. I have seen *E. riparium* growing along a small stream in a ravine at the Desierto de los Leones, Distrito Federal, in the hills above Mexico City. Both species are pests in grazing land in Hawaii.

On November 7, 1960 I collected specimens of *Ulex minor* Roth (determined by Royal Botanic Garden, Kew) in the grassy hills above Ribeiro Frio. Since then I have seen it also at Encumeada and Santo da Serra. *Ulex europaeus* L. has been known in Madeira for a long time, but I have not seen any records of *U. minor*.

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